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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/885,829	06/20/2001	Kanji Minato	F-7029	4384

7590 09/23/2002

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122 East 42nd Street  
New York, NY 10168

EXAMINER

VALENTI, ANDREA M

ART UNIT	PAPER NUMBER
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3643

DATE MAILED: 09/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/885,829

Applicant(s)

MINATO ET AL.

Examiner

Andrea M. Valenti

Art Unit

3643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 July 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

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*AmP*

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 5-9, and 14 are rejected under 35 U.S.C. 102(a) as being anticipated by Control of Phytopathogenic Prokaryotes By Cultural Management and Chemicals.

Regarding Claim 1, 2, 5, and 14, the article on Cultural Management teaches a method of controlling a seed disease by sterilizing seeds by at least one of a physical technique (Page 1 Section C, Seed Treatment and Table 2) and a chemical technique (Page 9, Section C, Seed Treatment); and treating the thus sterilized seeds by an effective microorganism which is antagonistic against a pathogen of a seed borne disease (Page 12 Section 6).

Regarding Claim 6, the article on Cultural Management discloses that the seeds to be treated are those, which have been contaminated with the pathogen of the seed born disease (Table 2).

Regarding Claim 7, the article on Cultural Management discloses the treated seeds are those belonging to a family selected from the group Brassicaceae,

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Umbelliferae, Solanaceae, Cucurbitaceae, Compositae, Liliaceae, Chenopodiaceae, Leguminosae (Page 12 Section 6).

Regarding Claim 8, the article on Cultural Management discloses the physical technique is a dry-heating treatment or warm-water treatment (Table 2).

Regarding Claim 9, the article on Cultural Management discloses the chemical technique is a treatment selected from the group of soaking, powder-coating, and coating wherein all three treatments are performed using a synthetic agrochemical (Page 9 Section C, Seed Treatment).

Claims 1, 2, 5-7, and 9-14 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,828,999 to Jackson.

Regarding Claim 1 and 14, Jackson teaches a method of controlling a seed disease by sterilizing seeds by a chemical technique (Col. 6 line 45); and treating the thus sterilized seeds by an effective microorganism, which is antagonistic against a pathogen of a seed borne disease (Claim 1).

Regarding Claim 2, Jackson teaches the effective microorganism is a plurality of types of microorganisms (Claim 1).

Regarding Claim 5, Jackson discloses at least one type of effective microorganism is a microorganism separated from seed (Col. 3 line 7-15).

Regarding Claim 6, Jackson teaches the seeds to be treated are those, which have been contaminated with the pathogen of the seed born disease (Col. 3 line 28).

Regarding Claim 7, Jackson teaches the treated seeds are those belonging to a family selected from the group Brassicaceae, Umbelliferae, Solanaceae, Cucurbitaceae, Compositae, Liliaceae, Chenopodiaceae, Leguminosae (Col. 3 line 13).

Regarding Claim 9, Jackson discloses the chemical technique is a treatment selected from the group of soaking, powder-coating, and coating wherein all three treatments are performed using a synthetic agrochemical (Col. 4 line 26).

Regarding Claims 10-13, Jackson teaches seeds are soaked in an aqueous dispersion of the effective microorganism, pelleting, film-coated, absorb water through carrier (Col. 2 line 24).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,828,999 to Jackson.

Regarding Claims 3 and 4, Jackson teaches the application of a variety of microorganisms (Claim 6), but is silent on a specific genus of the microorganism. However, it would have been obvious to one of ordinary skill in the art to modify the teachings of Jackson with the well-known microorganism from the genus *Pantoea* or genus *Leclercia* since the modification is merely alternate equivalents that perform the same intended function of an antagonist selected for ease of culturing.

Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Control of Phytopathogenic Prokaryotes By Cultural Management and Chemicals.

Regarding Claims 3 and 4, the article on Cultural Management teaches the use of Streptomycin as an antagonist for Xanthomonas, but is silent on genus Pantoea or genus Lecleria. However, it would have been obvious to one of ordinary skill in the art to modify the teachings of the article on Cultural Management since the modification is merely an application of an alternate equivalent bacterium selected for its improved prokaryotic protein synthesis.

Claims 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Control of Phytopathogenic Prokaryotes By Cultural Management and Chemicals in view of U.S. Patent No.5,783,411 to Schisler et al.

Regarding Claims 10-13, the article on the Cultural Management is silent on the administering technique for the treatment by an effective microorganism. However, Schisler et al teaches that the microorganism treatment applied to a seed through soaking in an aqueous dispersion of the effective microorganism, pelleting, film coating, water absorbing (Schisler Col. 7 line 60-61). It would have been obvious to one of ordinary skill in the art to modify the teachings of the article on Cultural Management with the old and well-known microorganism applications of Schisler to optimize the seed treatment with a thorough and efficient application.

***Response to Arguments***

Applicant's arguments filed 22 July 2002 have been fully considered but they are not persuasive.

Examiner maintains that applicant's broad claim language does not distinguish over the teachings of the prior art. Applicant does not claim the order in which the treatment is conducted. Instead, Applicant merely claims that both sterilizing and microorganism are used as part of the method.

Examiner maintains that the antibiotics taught by Cultural Management teach that the antibiotic microbes are antagonists for other microbes and therefore are in fact effective microorganism.

Examiner maintains that Cultural Management teaches all the treatments claimed by applicant and the advantages of these treatments on plant development. It would have been obvious to one of ordinary skill in the art to apply all or one of the treatments taught by Cultural Management for the enhanced treatment and increased survival rate/production. Using one or more of the treatments simultaneously is merely a design choice based on economic and time parameters, seed specific, and the location/weather conditions where the seed will be planted. Prophylactic treatment is an integrated system of management to control disease and therefore commonly involves multiple treatment steps of varying techniques of treatment.

Furthermore, examiner maintains that Schisler inherently teaches pelleting since the seed is a pellet and Schisler teaches the application of a dust or powder to the seed.

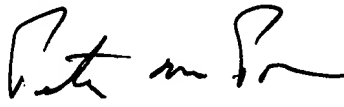
**Conclusion**

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrea M. Valenti whose telephone number is 703-305-3010. The examiner can normally be reached on 7:30am-5pm M-F; Alternating Fridays Off. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter M. Poon can be reached on 703-308-2574. The fax phone numbers for the organization where this application or proceeding is assigned are 703-306-4195 for regular communications and 703-305-0285 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-4357.

AMV  
September 17, 2002

  
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